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 DEPARTMENT: MEDICINE AND SURGERY

 COLLEGE: MEDICINE AND HEALTH SCIENCES

 COURSE CODE: CHM 102

1a. ethylbenzene(C8H9), phenylmethanimine(C7H7N), phenylmethanone(C7H5O), pyran-3-carbonitrile(c6H3NO)

Bi. They are the basis of all carbon-based life on earth, an element that all living organisms contain

 ii. organic compounds also create energy production in biological life, depletion of the atmosphere and release energy from hydrocarbons.

iii. carbohydrates provide life forms with the energy needed to maintain cellular function.

iv. lipids or fats store energy in the body for later use

v. proteins create the structural parts of cells that are later built into the tissues and organs that make up the entire body of an organism.

vi. ancient life foms buried beneath the surface of the earth and transformed into hydrocarbons form the basis of all mankind’s mechanical energy consumption.

vii. crude fuel Is refined in gasoline, propane, diesel, kerosene and natural gas so cars and heating systems can work.

1c.

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| Homocyclic compound | Heterocyclic compound |
| 1. all the atom of the ring are of the same element i.e carbon | They have one or more atom other than carbon in at least one of it ring |
| 2. they are sub-divided into alicyclic and aromatic compounds | They are sub-divided into alicyclic and aromatic heterocyclic compounds  |
| 3. examples are phenol, toluene, naphthalene and anthracene | Examples are tetrahydrofuran, piperidene, pyridine, furan and pyrnole  |

2a. Rf =2.4cm/12.2cm

 =0.19

ii. Rf =5.6cm/12.2cm

 =0.46

iii. Rf =8.9cm/12.2cm

 =0.73

b. A-Aldehyde

 B-Alkene

c. Ketones and aldehydes

d.i Alkane- R(CH2)nH e.g methane, butane

 ii. alkene- R2C=CR2 e.g ethene, propene

 iii. alkyne e.g propyne, butyne

 iv. alkanal- RCHO e.g propanal, pentanal

 v. alkanol-ROH e.g ethanol, hexanol

 vi. alkanoic acid-RCOOH e.g ethanoic acid, propanoic acid

 vii. alkyl halide-RX e.g ethyl bromide, propyl fluoride